

ABSTRACT

A scanning device for: scanning coded data disposed on a surface; and generating interaction data based on the sensed coded data, the interaction data being indicative of interaction of the scanning device with the surface; the coded data including, at a plurality of locations on the interface surface, a corresponding plurality of coded data portions, the scanning device comprising:

- 5 (a) a laser source and scan optics configured to emit a scanning beam through an aperture in a housing of the scanning device, the scanning beam being directed in first and second orthogonal directions to thereby generate a raster scan pattern over a scanning patch, the scanning patch being positioned to cause the exposure of the at least one coded data portion when the surface and the
- 10 sensing device are positioned operatively with respect to each other;
- (b) a photodetector for detecting reflection of the scanning beam from the surface, thereby to capture sample information;
- (c) at least one analog to digital converter for converting the captured sample information into sample data;
- 15 (d) a first framestore for storing successive sample data as image data;
- (e) an image processor for processing the image data to generate processed image data;
- (e) a host processor for generating the interaction data based at least partially on the processed image data.